INTEK®

SERVICE MANUAL / PARTS LIST

ALL ELECTRIC MODELS and VOLTAGES

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A DOVER™ COMPANY

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PART NUMBER 158632 REV B (11/11)

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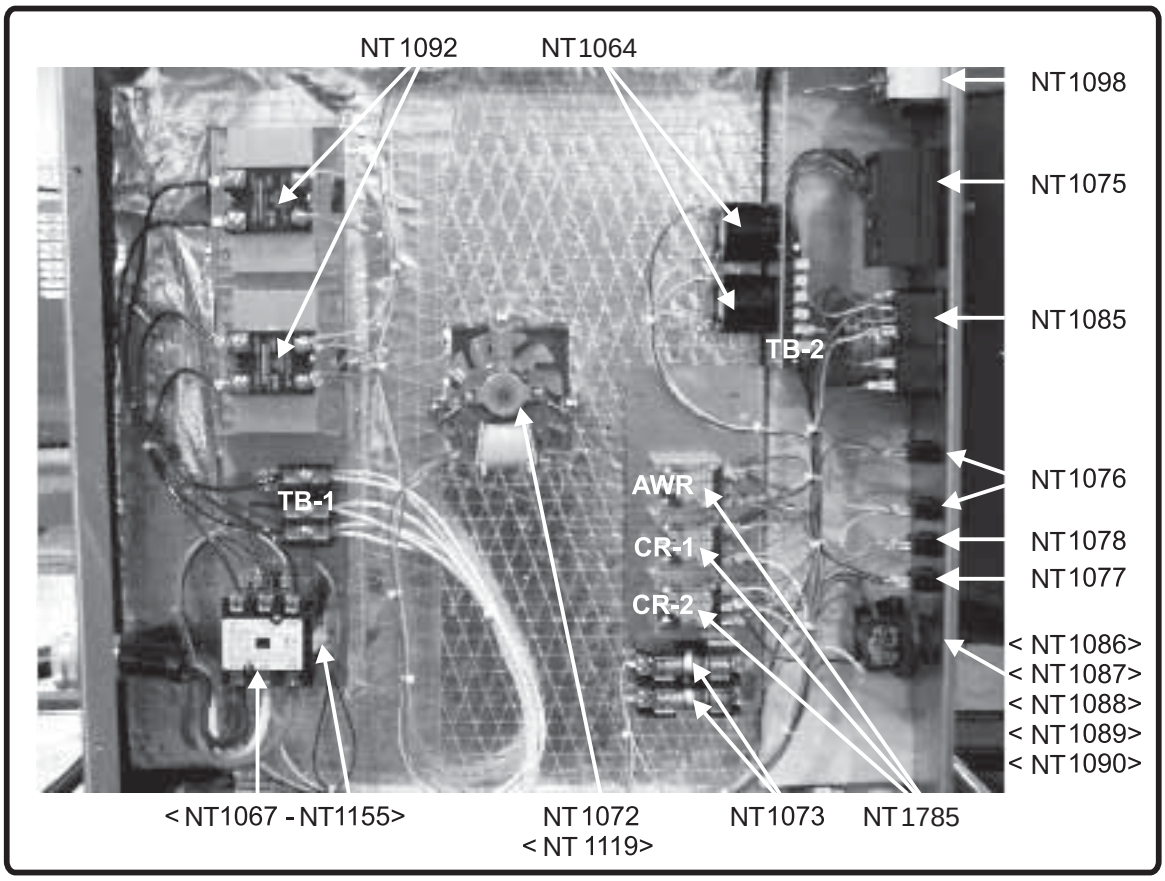


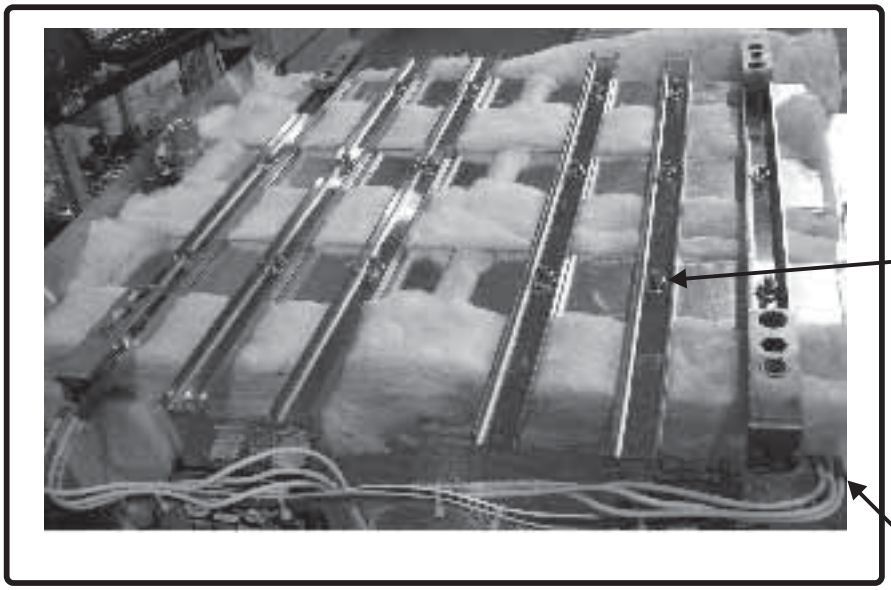
FIGURE 1
XS-208-12-3 (3 Phase Unit Shown)

INTEK P/N	Description
NT1064	Buzzer, Continuous, Low Water / End of Cycle
NT1067	DP Contactor, Main Power
NT1785	Relay, 220V, Control
NT1072	Fan, Convection (Includes Blade Assy.)
NT1073	Fuse, 5 Amp
NT1075	Thermostat, Hold 100-212 Degrees
NT1076	Lamp, Red
NT1077	Lamp, Blue
NT1078	Lamp, Amber
NT1085	Timer, 60 Minute
NT1086	Operator, Switch, PB, On
NT1087	Operator, Switch, PB, Off
NT1088	Mounting Latch, On / Off Switches
NT1089	Contact, NC, Off Switch
NT1090	Contact, NO, On Switch
NT1092	Solid State Relay, 75A, AC Input
NT1098	Thermometer, Analog 100-220 Degrees
NT1155	Aux. Contact, DP Contactor
NT1119	Shaft Seal, 6mm Teflon

WARNING
TO PREVENT ELECTRICAL SHOCK DISCONNECT AC INCOMING POWER BEFORE SERVICING.

NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION



IMPORTANT
Apply Loc-Tite™ Removable-ThreadLocker™
AND
Torque Clamping Nuts to 65in.lbs. / 5.5ft.lbs.

FIGURE 2

Heater Is Located Under Bracket / Clamp Assembly

WARNING
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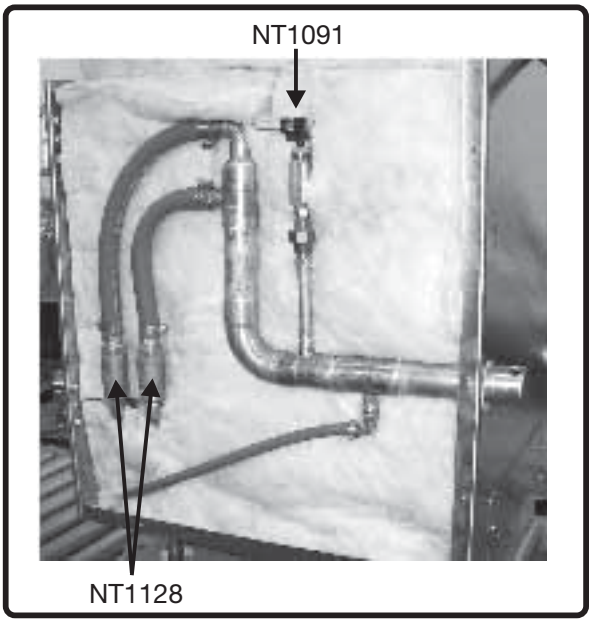


FIGURE 3

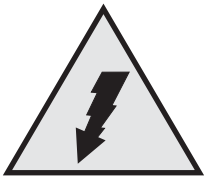
INTEK P/N	Description
NT1009	Heater, 208V, 12kW
NT1011	Heater, 240V, 12kW
NT1012	Heater, 208V, 6.24kW
NT1013	Heater, 240V, 6.24kW
NT1045	Heater, 208V, 8.5kW
NT1046	Heater, 240V, 8.5kW
NT1269	Heater, 208V, 14.4kW
NT1270	Heater, 240V, 14.4kW
NT1091	Switch, Pressure, 1/8"NPT
NT1797	Heater, 208V, 14.4kW (new ver.)
NT1798	Heater, 240V, 14.4kW (new ver.)
NT1128	Valve, Check, 3/4"

PARTS NOT SHOWN

NT1079	Thermostat, Bi-metal, 325F
NT1080	Thermostat, Bi-metal, 410F
NT1100	Switch, Reed, Door
NT1018	Door Seal

REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION

TROUBLESHOOTING GUIDE



WARNING

TO PREVENT ELECTRICAL SHOCK DISCONNECT AC INCOMING POWER BEFORE SERVICING.

NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

SYMPTOM	POSSIBLE CAUSE
No Lights When ON Is Pressed	**Facility Main Breaker, Unit Ran Dry- No Water In Chamber, F1/F2 Fuse, Hi-Limit (OT-1), MC, CR-1 or N.O. Contact- ON Pushbutton**
Unit Turns ON When "ON" Pushed- Turns OFF When Released	**Auxilary Contact on MC, N.C. Contact- OFF Pushbutton**
"Add Water" Light On	**Not Enough Water In Chamber, Build-Up (Lime) On Chamber Bottom, OT-2/OT-3 or AWR.**
Unit Won't Heat Up:	
1) w/ Steam Out Exhaust	**PS-1, SSR-1/SSR-2, CR-2 Not Working In Cook Mode**
2) w/o Steam Out Exhaust	**Steam Orifice Is Blocked**
Heat Stays On (Light Stays On)	**Normal When Door Open, PS-1, SSR-1/SSR-2 (If Door Is Leaking Steam- Adjust First)**
Heat Stays On (Light Cycles)	**SSR-1/SSR-2**

OPERATING SUMMARY

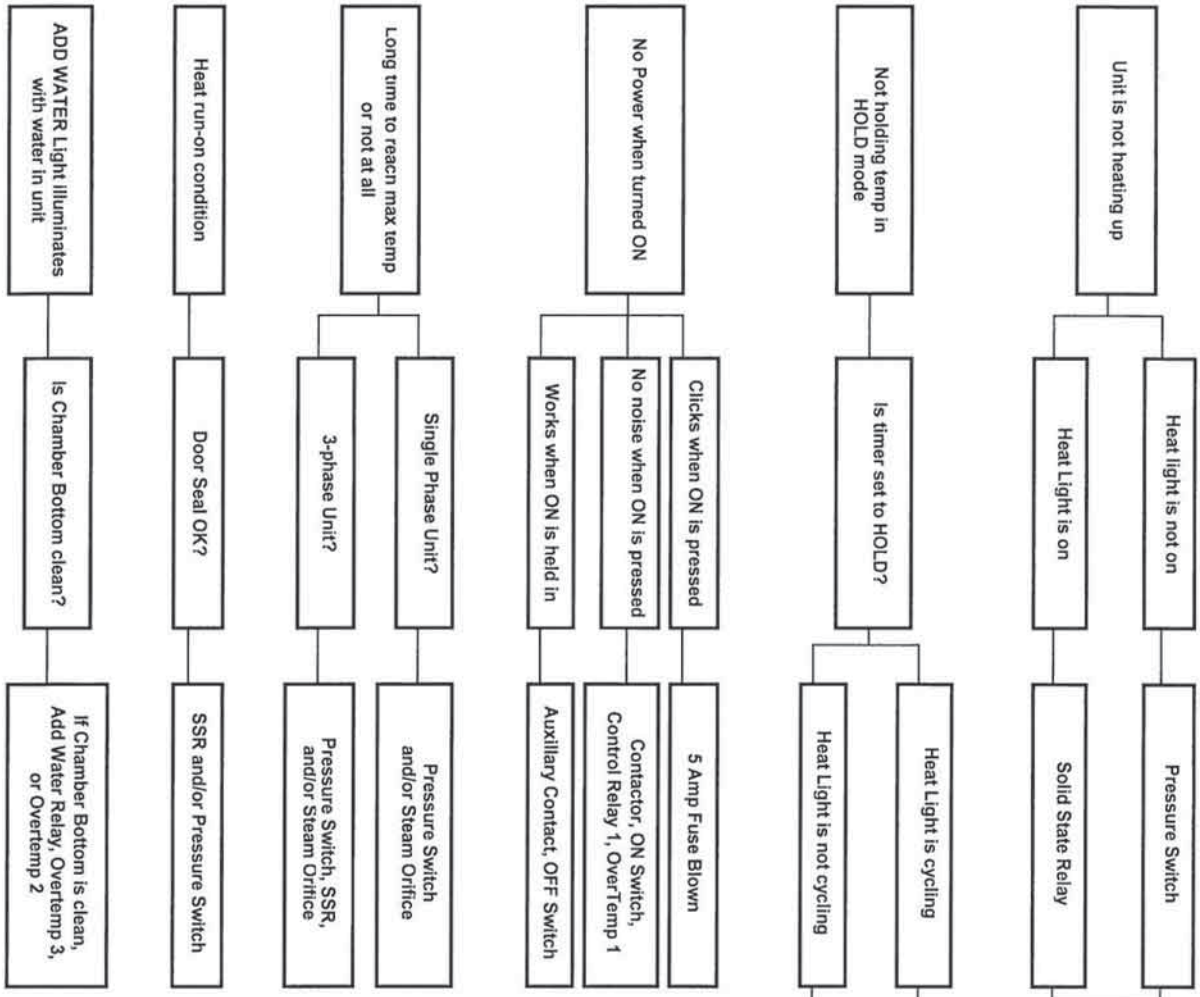
When the timer is at the HOLD position, heat is controlled by the HOLD Thermostat. When the timer is at any other position, heat is directly controlled by PS-1 (pressure switch). Note: Both COOK and HOLD Mode heat outputs are directed through PS-1.

It is normal for the Heat Indicator Light to cycle ON and OFF.

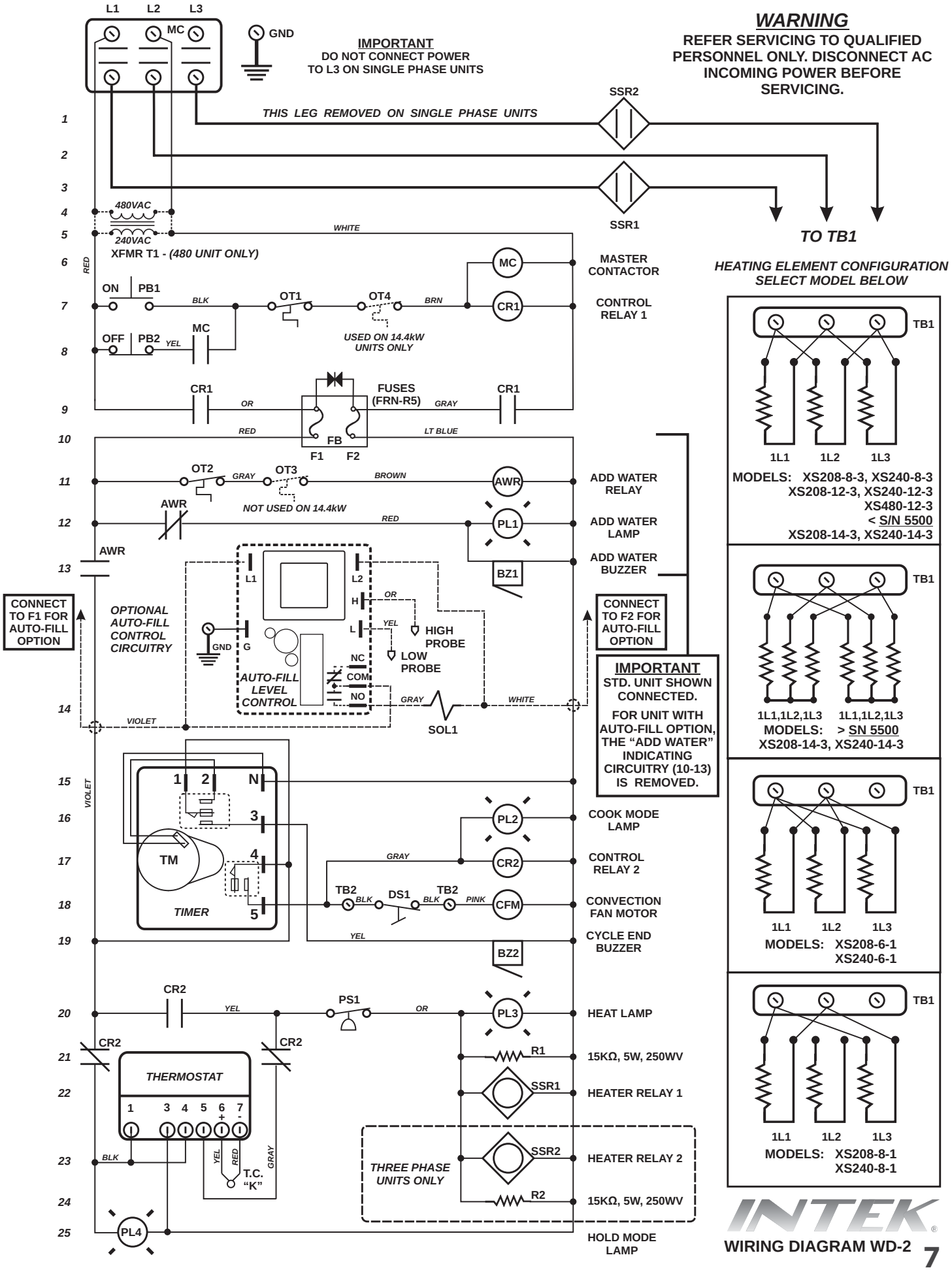
The Convection Fan (CFM) is only on during the cooking cycle.

REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION

TROUBLESHOOTING GUIDE



NOTE: Steam Orifice is located at the bottom of the Pressure Switch Tee and above the Union


L1 L2 L3
MC
GND
IMPORTANT
DO NOT CONNECT POWER TO L3 ON SINGLE PHASE UNITS
WARNING
REFER SERVICING TO QUALIFIED PERSONNEL ONLY. DISCONNECT AC INCOMING POWER BEFORE SERVICING.
SSR2
THIS LEG REMOVED ON SINGLE PHASE UNITS
SSR1
TO TB1
480VAC
240VAC
XFMR T1 - (480 UNIT ONLY)
WHITE
RED
ON PB1
OFF PB2
BLK
YEL
OT1
OT4
BRN
USED ON 14.4kW UNITS ONLY
MC
CR1
MASTER CONTACTOR
CONTROL RELAY 1
FUSES (FRN-R5)
GRAY
OR
FB
F1 F2
LT BLUE
OT2
OT3
BROWN
NOT USED ON 14.4kW
AWR
ADD WATER RELAY
ADD WATER LAMP
ADD WATER BUZZER
PL1
BZ1
CONNECT TO F1 FOR AUTO-FILL OPTION
OPTIONAL AUTO-FILL CONTROL CIRCUITRY
L1 L2 H L G GND
HIGH PROBE
LOW PROBE
AUTO-FILL LEVEL CONTROL
NC COM NO
SOL1
VIOLET
CONNECT TO F2 FOR AUTO-FILL OPTION
IMPORTANT
STD. UNIT SHOWN CONNECTED.
FOR UNIT WITH AUTO-FILL OPTION, THE "ADD WATER" INDICATING CIRCUITRY (10-13) IS REMOVED.
1 2 N 3 4 5
TM
TIMER
PL2
COOK MODE LAMP
CR2
CONTROL RELAY 2
TB2
DS1
PINK
CFM
CONVECTION FAN MOTOR
CYCLE END BUZZER
BZ2
PS1
PL3
HEAT LAMP
R1
15KΩ, 5W, 250WV
SSR1
HEATER RELAY 1
THERMOSTAT
1 3 4 5 6 7
+ -
T.C. "K"
THREE PHASE UNITS ONLY
SSR2
HEATER RELAY 2
R2
15KΩ, 5W, 250WV
PL4
HOLD MODE LAMP
HEATING ELEMENT CONFIGURATION
SELECT MODEL BELOW
TB1
1L1 1L2 1L3
MODELS: XS208-8-3, XS240-8-3
XS208-12-3, XS240-12-3
XS480-12-3
< S/N 5500
XS208-14-3, XS240-14-3
1L1,1L2,1L3 1L1,1L2,1L3
MODELS: > SN 5500
XS208-14-3, XS240-14-3
MODELS: XS208-6-1
XS240-6-1
MODELS: XS208-8-1
XS240-8-1

REPLACEMENT PARTS LIST

Part No.	Description
NT1009	Heater, 208V, 12kW
NT1011	Heater, 240V, 12kW
NT1012	Heater, 208V, 6.24kW
NT1013	Heater, 240V, 6.24kW
NT1045	Heater, 208V, 8.5kW
NT1046	Heater, 240V, 8.5kW
NT1269	Heater, 208V, 14.4kW
NT1270	Heater, 240V, 14.4kW
NT1797	Heater, 208V, 14.4kW (new ver.)
NT1798	Heater, 240V, 14.4kW (new ver.)
NT1063	Buzzer, Continuous, Low Water/End of Cycle
NT1067	DP Contactor, Main Power
NT1070	Relay, 220V, Control
NT1072	Fan, Convection (Includes Blade Assy.)
NT1073	Fuse, 5 Amp
NT1075	Thermostat, Hold 100-212 Degrees
NT1076	Lamp, Red
NT1077	Lamp, Blue
NT1078	Lamp, Amber
NT1079	Thermostat, Bi-Metal, 325°F
NT1080	Thermostat, Bi-Metal 410°F
NT1083	Plug, Angle 250V 3PH
NT1085	Timer, 60 Minute
NT1086	Operator, Switch, PB, On
NT1087	Operator, Switch, PB, Off
NT1088	Mounting Latch, On/Off Switches
NT1089	Contact, NC, Off Switch
NT1090	Contact, NO, On Switch
NT1091	Switch, Pressure, 1/8" NPT
NT1092	Solid State Relay, 75A, AC Input
NT1093	Terminal block, 3-pos.
NT1098	Thermometer, Analog 100-220 Degrees
NT1100	Switch, Reed, Door Switch
NT1155	Aux. Contact, DP Contactor
NT1018	Door Seal
NT1115	Hinge, one pair
NT1119	Shaft Seal, 6mm
NT1144	Magnetic Door Latch
NT1175	Stand Caster, 5” Locking
NT1176	Stand Caster, 5” Non-locking
NT1178	Knob
NT1335	Nutplate
NT1127	Drain Valve
NT1064	Buzzer, Continuous, Low Water/End of Cycle
NT1022	Shell/Top
NT1023	Right Side, Shell
NT1151	Left Side Shell, Louvered
NT1021	Door Assembly
NT1137	Auto Fill Control Board with Probes
NT1028	Control Panel Overlay
NT1502	Check Valve Assembly
NT1116	Heat Sink
NT1132	3/4 Inch Hose
NT1001	Galvanized Bottom Plate
NT1003	Heater Plate, Aluminum
NT1120	Insulation, Chamber bottom
NT1135	Lens, Thermometer
NT1537	Inner Door Panel Assembly
NT1096	Thermocouple
NT1037	Shelf Bracket, Stand
NT1027	Pan Bracket- Steamer Bottom
NT1035	Wire from Assembly, LH side
NT1117	Steamer Foot, flanged
NT1104	Screw, 10-24 x 1/2 SS
NT1217	Nutsert
NT1158	Radial Lead Varistor
NT1202	Brass Reducer, 1/2 x 1/8
NT1122	Insulation, Door

Extreme Steam Element Field Replacement Instructions

Please Read and Follow the Instruction Below

- Safely remove all power connections, drain lines, and fill lines (if applicable). A stacked unit must be removed from its location (top or bottom) in order to change the element.
- Disconnect the element wires connected to the terminal block.
- Due to the location of the element and the limited space available, you must turn the unit upside down.
- Remove the two side panels.

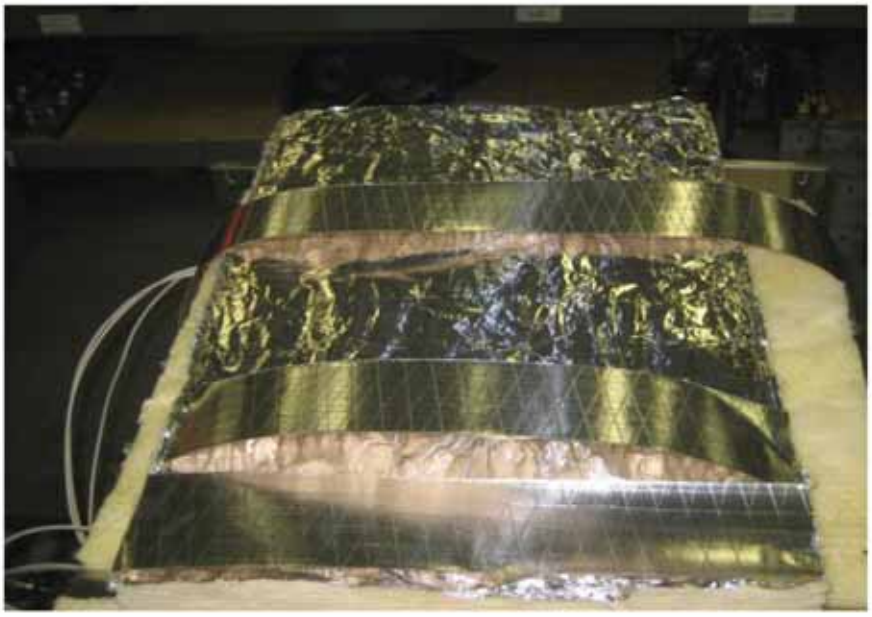
Removing the Extreme Steam Heating Element

Step 1: Turn the unit upside down and remove the legs using a Crescent Wrench as shown above

Step 2: Remove the drain cover Part # NT1048 and two screws Part # NT1105

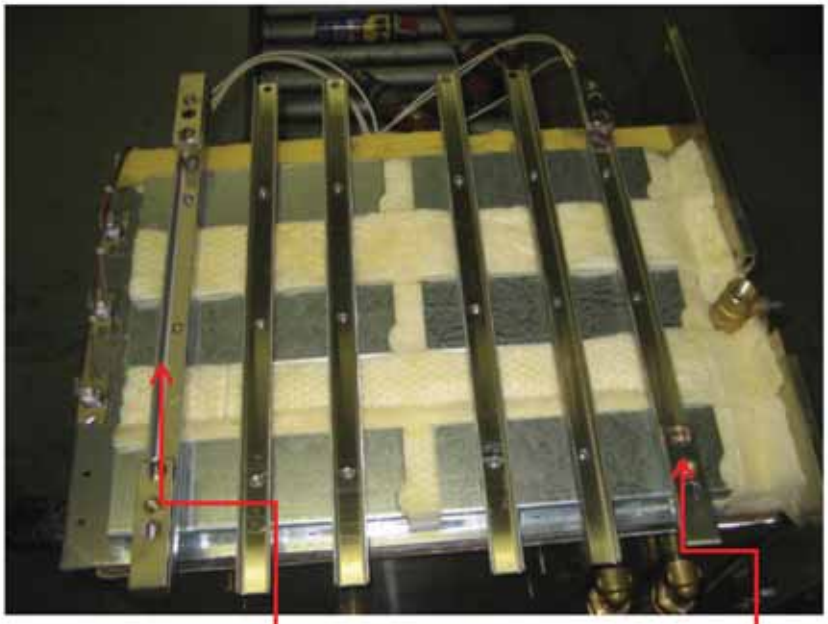
Step 3: Remove the (5) drip rails Screws Part# NT 1104

Step 4: Remove the bottom and back panel as seen above

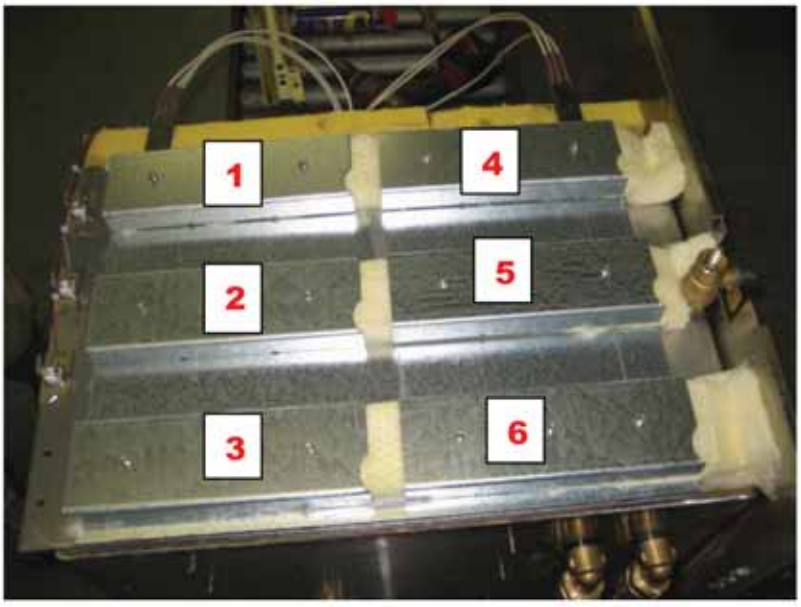


Step 5: Remove insulation Part #1162 shown above

Step 6: Remove sheet insulation Part# 1120

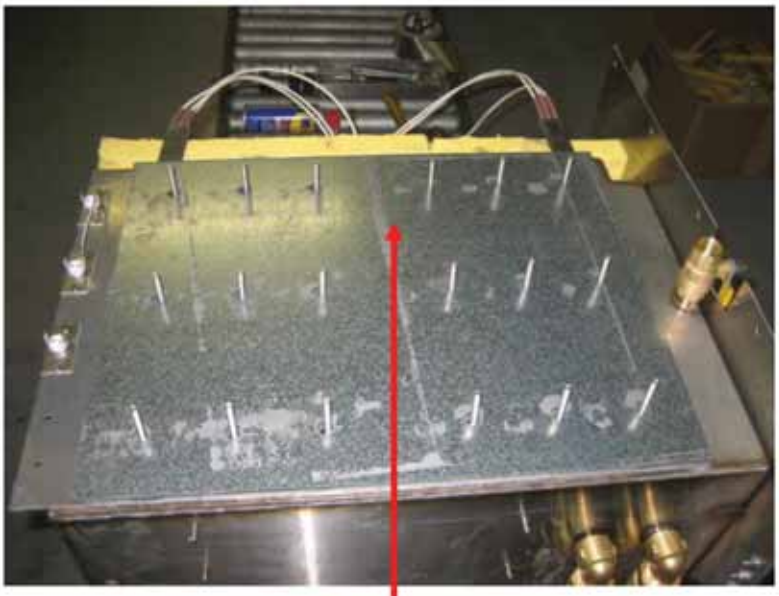


Step 7: Remove the U-Brackets and note tall bracket is in the rear and the short bracket in the front

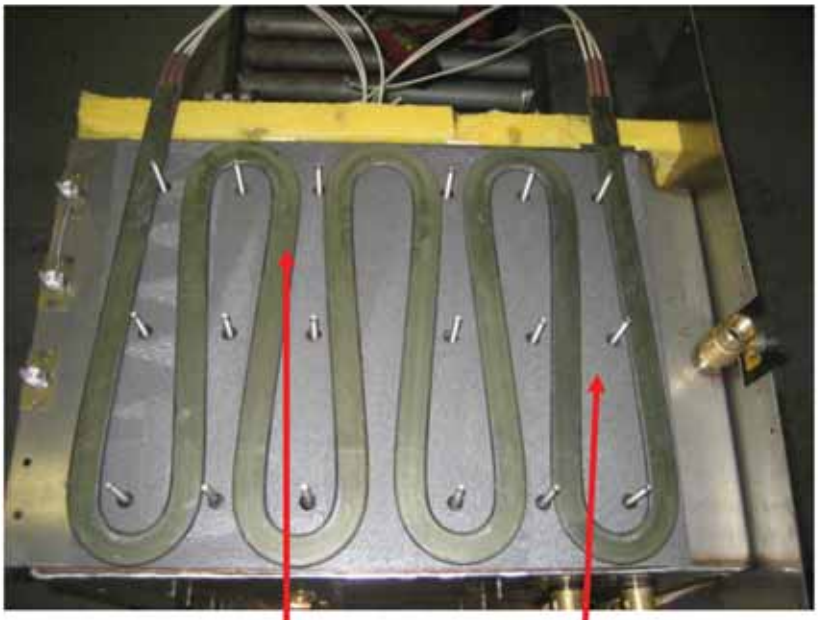


Step 8: Remove the (6) u-channels Part# NT1014 as seen above

Step 9: Remove Insulation Part# NT1120 from bottom of unit



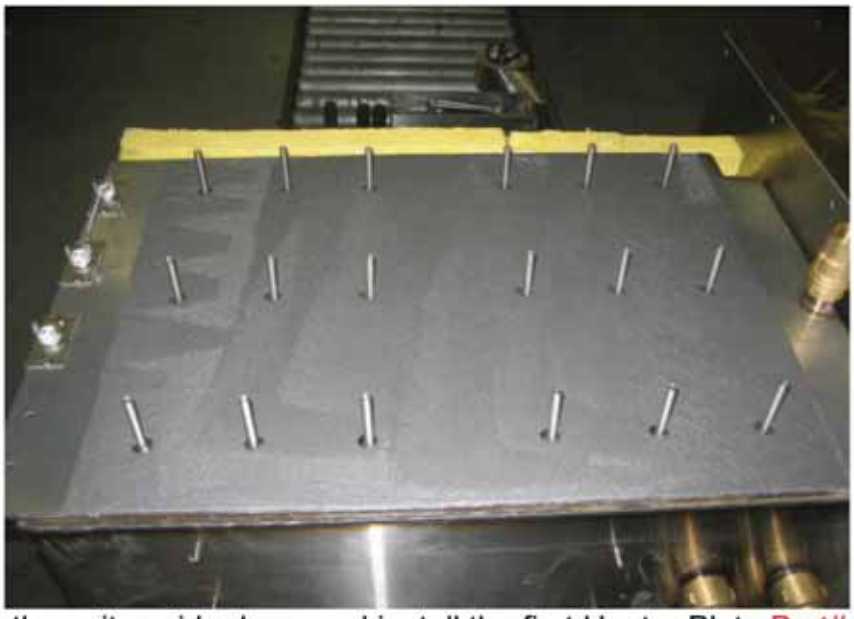
Step 10: Remove bottom Galvanized Heater Plate Part # 1001



Step 11: Remove the Element and the First Heater Plate

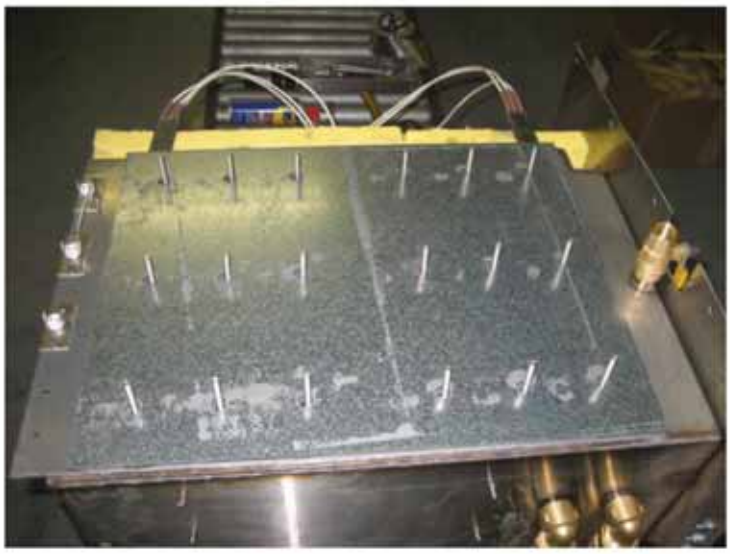
Installing the Extreme Steam Heating Element

Step 1: The heater plate Part # NT1003 need to be coated on both sides with Anti-Sieze Using a roller brush.

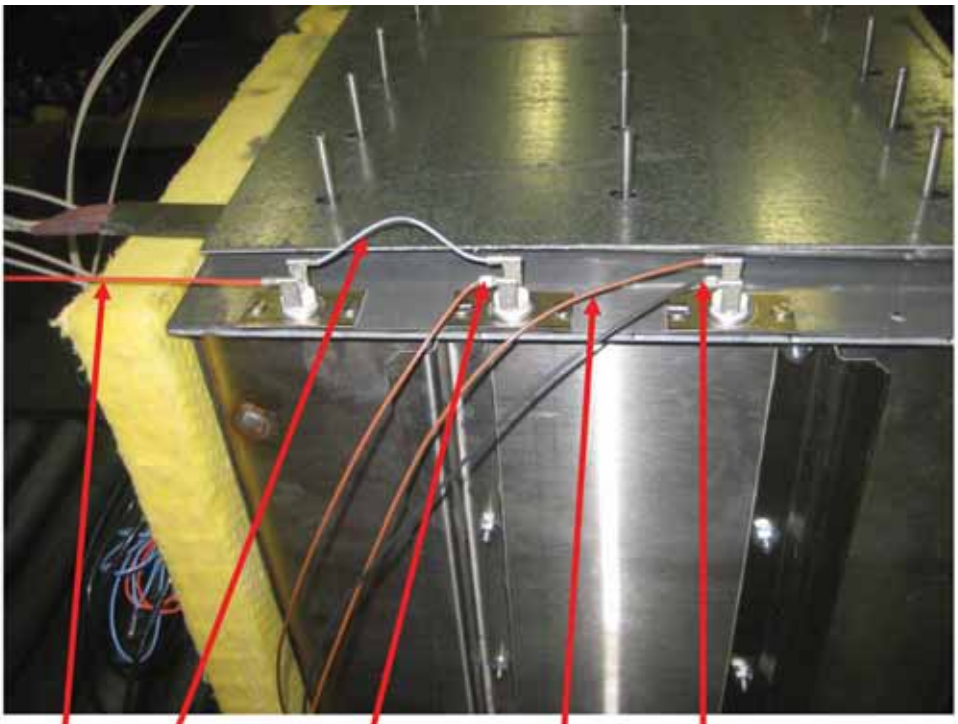


Step 2: Turn the unit upside down and install the first Heater Plate Part# NT1003

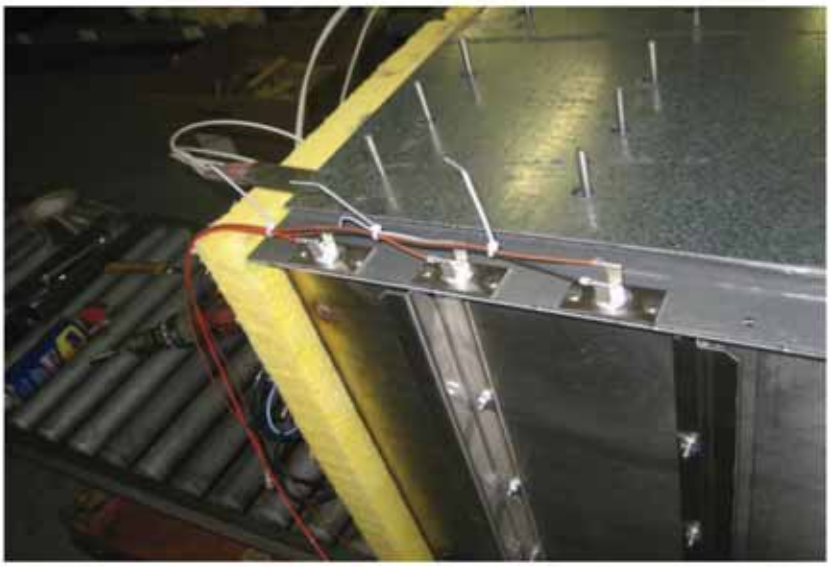
Step 3: Slightly bend the element to improve the fit, making sure the **edge of the turns** are not Hanging over the heater plate and the element isn't touching the studs at any stud locations



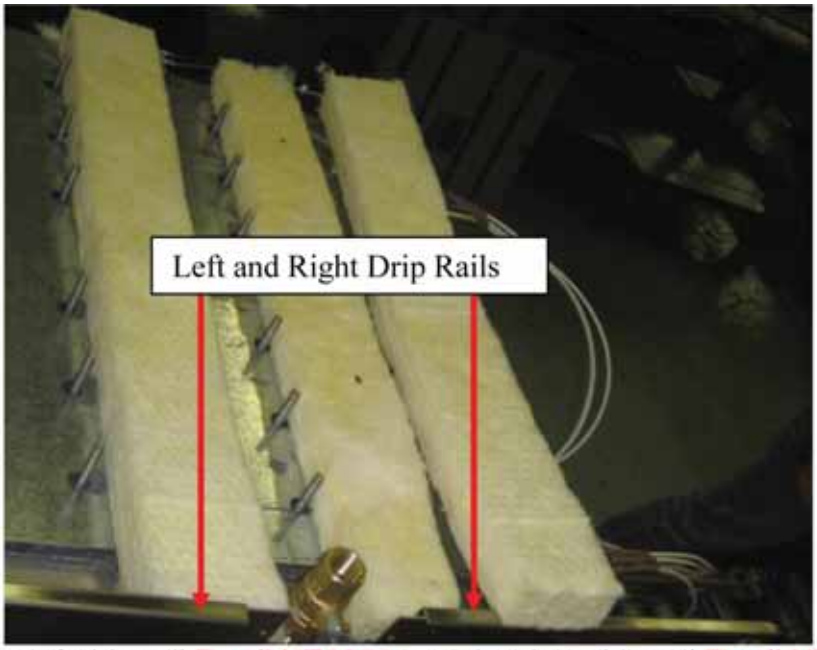
Step 4: Install the galvanized bottom heater plate Part # NT1001



Step 5: Install the **red**, **jumper**, **long brown**, **short brown** and **black** wires as seen above

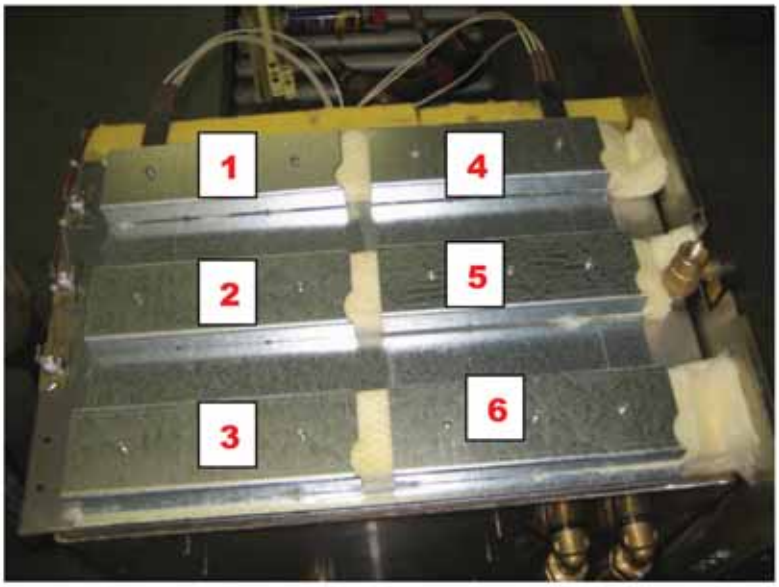


Step 6: Zip tie as seen above

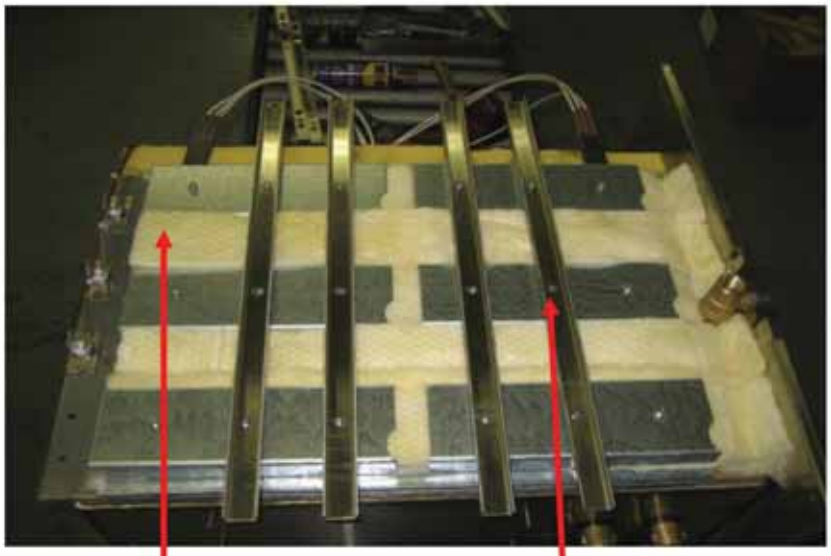


Step 7: Install the left drip rail Part# NT1051 and the right drip rail Part# NT1052. Set in place but do not attach

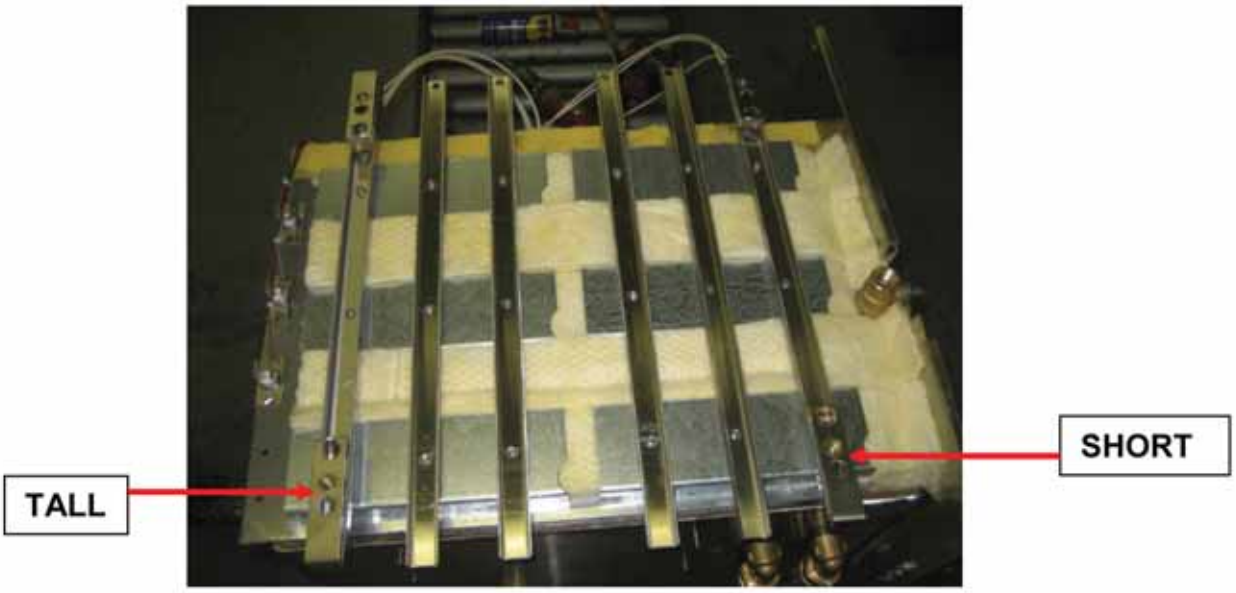
Step 8: Place the insulation Part # NT1120 as seen on the bottom of the unit



Step 9: Insert (6) u-channels Part# NT1014 as seen above



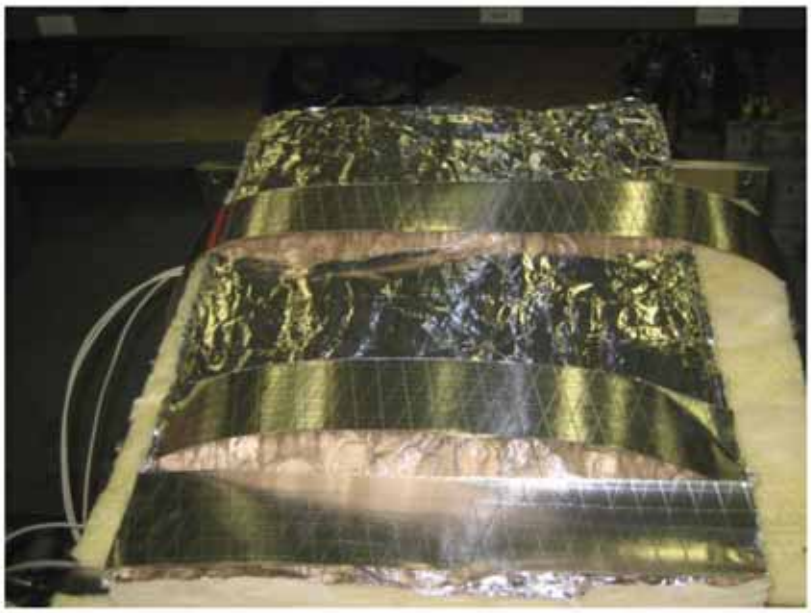
Step 10: Add insulation and install (4) Part# NT1016 as seen



Step 11: Install the short and tall U-Brackets towards the front of the unit

Step 12: Use LocTite on all the studs prior to tighten the nuts Part# NT1101
Nuts should be tighten with a torque wrench to 80 in/lbs

Step 13: Add Part# NT1120 insulation sheet over the previously tightened brackets



Step 14: Place the back insulation Part# NT1162

Step 15: Place the bottom back on the unit as shown above

Step 16: Install the two pan holders Part# NT1027 and install the legs through the pan holders after applying Loctite. Leave the feet slightly tighten for future adjustment

Step 17: Secure the drip rails using (5) screws Part# NT1104

Step 18: Install the drain valve cover Part# NT1048 using two screws Part# NT1105

Step 19: Complete assembly by tightening the feet using a Cresent Wrench

Step 20: Return unit to its normal upright position and wire elements per wiring diagram

REPLACING NT1098 THERMOMETER ON INTEK XTREME STEAM

Figure 1

Step 1: Safely remove all power connections

Step 2: Remove left side panel and remove existing thermometer from front panel

Figure 2

Step 3: Cut the insulation in halves and slide the bottom half out to expose the bulb and bracket

Figure 4

Step 4: Remove damaged bulb, replace the thermometer bulb 1098 and apply heat sync compound to the bulb. If bracket is replaced apply heat sync compound to the backside of bracket (Compound does not come with the temperature gauge)

Step 5: Secure the bracket and bulb using two the 1102 nuts as shown above

Step 6: Replace the Insulation; install the gauge, and the left side panel. Reconnect power supply

Watlo Heater Amp Reading During Operation

	AMPS +/- 10%	OHMS Per Element
208-14-3000	38.9	9.3
208-12-3000	33	10.5
208-8-3000	22	15
208-8-1000	38.5	10.5
208-6-1000	28.9	20
240-14-3000	33.7	12
240-12-3000	28.9	14
240-8-3000	19.2	20
240-8-1000	33.3	14
240-6-1000	25	27
480-12-3000	14.4	56.6

To receive the proper Ohms per element, disconnect all heater leads from the three position terminal block and test 1L1 to 1L1 - 2L2 to 2L2 - 3L3 to 3L3

To read the Amps per unit during normal operation, connect the Amp meter to the incoming power cord leads connecting to the Main Contactor. Amp out each lead.

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